



RBSA 2022 Introductory Webinar

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Agenda



Background



Study Overview



Regional Coordination



Background



NEEA's Business Plan: Stock Assessments



Single-family



Multi-family



“This will be the first cycle that natural gas funding supports the stock assessments.”



RBSA Workgroup

Purpose: The Residential Building Stock Assessment (RBSA) Work Group will provide NEEA with decision support and coordination on key components of the study's design and implementation.

- Avista
- Bonneville Power Administration
- Cascade Natural Gas
- Clark PUD
- Energy Trust of Oregon
- Idaho Power
- Northwest Natural Gas
- Northwest Power and Conservation Council
- Puget Sound Energy
- Regional Technical Forum
- Seattle City Light
- Snohomish County PUD

Residential Building Stock Assessment (RBSA)

Vision Statement:

“Support the region's energy efficiency, resource planning, and utility objectives through a regionally representative, statistically rigorous, and comprehensive assessment of residential buildings.”

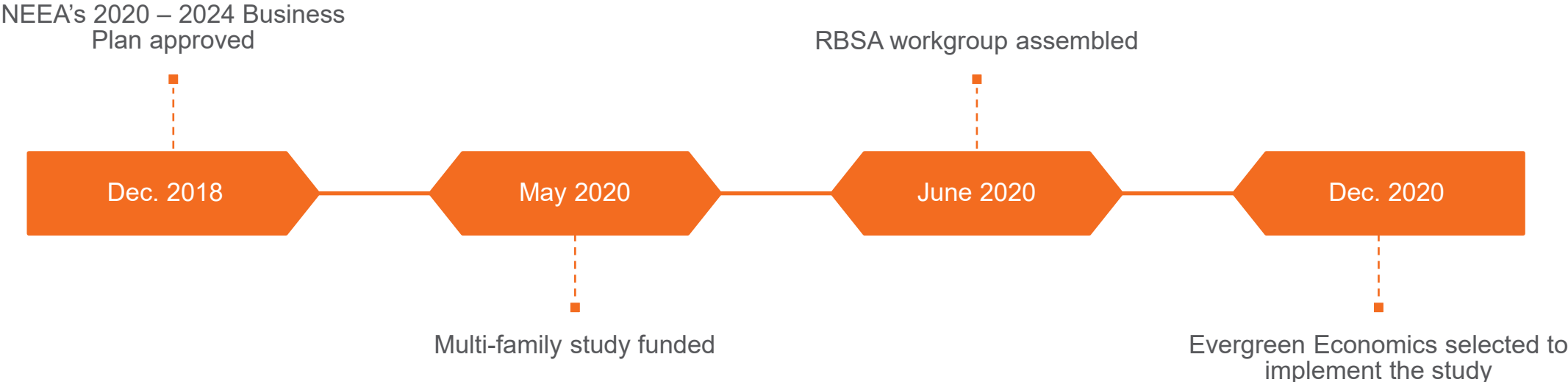


Residential Building Stock Assessment

A study that:

1. Collects characteristics and equipment that affect energy use in single-family and multi-family buildings and units.
2. Collects energy use and demographic data.
3. Is representative of the underlying population.
4. Is conducted roughly every five years (2011, 2017, 2022)

Key Activities to Date





Study Overview

Project Team



- Project Management
- Project Planning
- Sample Design
- Systems Development and Testing
- Analysis and Reporting



- Systems Development and Testing
- Training
- Site Visits
- Recruitment (Michaels)



Two Parallel Studies (SF and MF)

Single-Family



- 1,000 detached homes
- 130 attached homes
- Sampling across BPA subregions, urban/rural, and income levels

Multi-Family



- 230 buildings
- 550 tenant units
- Sampling focused on building height and state

This does not include “oversamples” for Avista, BPA, Energy Trust of Oregon, and Puget Sound Energy



Utility and EE Organization Study Coordination

Before recruitment:

1. COVID safety plan
2. FAQ of the study
3. Sample recruiting materials

Before site visits:

1. Acknowledgement that we will be visiting homes in their jurisdictions
2. Approximate counts of homes



Single-Family RBSA

Recruitment:

1. Mailers to Northwest homes to “push” prospective participants to a web survey
2. Web survey to confirm eligibility and interest
3. Telephone scheduling

Recruitment will be bilingual (English and Spanish).
We can reach ~97% of the Northwest population this way, based on Census statistics



Data collection:

1. Building shell (e.g., foundation, walls, insulation, windows)
2. Large equipment (e.g., HVAC, DHW, solar PV, electric vehicles)
3. Appliances, electronics, and lighting
4. HVAC testing (blower door, duct blaster, TrueFlow)
5. Utility billing data release forms





Multi-Family RBSA

Recruitment:

1. Telephone recruitment of building owner/manager (including brief survey)
2. Flexible coordination with owner/manager to recruit tenants
3. Telephone scheduling of tenant unit visits





Multi-Family RBSA

Data collection:

1. Building shell (e.g., foundation, walls, insulation, windows)
2. Central building systems (e.g., HVAC, DHW, solar PV, lighting, EV charging stations)
3. In-unit HVAC, DHW, appliances, electronics, and lighting
4. Utility billing data release forms





Important: Two Types of Data

Characteristic data:

1. Site visit data (this is squarely on the project team to deliver)

Usage data:

1. We need utility help to gather this type of data
2. Evergreen will facilitate secure transfer and storage of the billing data
3. Usage data will never be combined with PII in our databases; usage data will remain anonymous



RBSA Products



Reports:

1. Highlight key building stock attributes
2. Focus on trends compared to prior RBSAs



Data Products:

1. Onsite data collection databases, summary tables
2. Recruitment tracking database
3. Data dictionary and data user guide



RBSA Timeline

Study Component	2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Study Design and Planning	■							
Systems and Resources Development and Testing	■							
Recruitment and Data Collection			■					
Data Analysis						■		
Reporting and Presentations								■



Regional Coordination



End Use Load Metering Studies



Home Energy Metering Study (HEMS)

400 homes, targeting
high-priority HVAC end uses

Sites recruited from RBSA



Commercial Energy Metering Study (CEMS)

100 buildings,
targeting office and retail



RBSA Updates

1. **Website:** neea.org/rbsa
2. **List serve:** neea.org/subscribe
 1. Building Stock Assessments
3. **Webinars:** Quarterly



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Questions?



Thank you

